

WHAT IS CLAIMED IS

1. Network router characterized in that it includes at least one generic router able to execute routings between inputs (I_1, I_2, I_3, \dots) and outputs (O_1, O_2, O_3, \dots), a configuration file including the parameters of a given set of routings between said inputs and outputs, and a routing table, a subset of routings (R_1, R_2, \dots) being loaded from said configuration file into said routing table by said generic router to enable this router to execute the routings between said inputs and outputs according to the configuration defined in said routing table.
- 5 10 2. Router according to the claim 1, wherein said subset of routings (R_1, R_2, \dots) is specific to a given need.
3. Router according to the claim 2, characterized in that when said generic router starts up it activates said inputs and outputs dedicated to the application and loads said routing table.
- 15 4. Router according to any of the preceding claims, wherein data processing functions (f_1, \dots, f_n) are associated with said routings (R_1, R_2, \dots), these functions being defined in said configuration file and loaded into said routing table.
5. Router according to the claim 4, wherein a message received by a given input is processed by a function f_1 associated with this input, then routed according to said routing table to a designated output, then processed by a function f_2 associated with this output.
- 20 6. Router according to any of the preceding claims, characterized in that it includes an operating system, input and output software layers, and an intermediate software layer providing the link between said operating system, said input and output layers and said generic router.
- 25 7. Router according to any of the preceding claims, wherein said inputs and outputs are connected to serial X25, BSC, asynchronous, HDLC links or to UDP- or TCP-type Ethernet links.
- 30 8. Router according to any of the preceding claims, characterized in that

- when the messages received are routed in a given sequence said generic router includes a function F_{ov} dedicated to capacity overflow management, this function rejecting the most recently received messages until the overflow situation is resolved, in order that the messages are routed in their sequential order without loss of any message within a routed sequence.
- 5
9. Router according to any of the preceding claims, characterized in that it includes a function F_{ov} dedicated to capacity overflow management, this function rejecting the oldest data in favor of the most recent data, the latter being routed to the output.
- 10
10. Router according to any of the preceding claims, characterized in that it includes a function F_{ov} dedicated to capacity overflow management, this function reducing the data rate on the route and sending a message to the data source requesting it to stop sending messages to enable the overflow situation to be resolved.
- 15
11. Router according to any of the preceding claims, wherein said routed data relate to an air traffic control application.
12. Router according to any of the preceding claims, wherein said routed data are radar data.
- 20 13. Router according to any of the preceding claims, wherein said routed data are meteorological data.
14. Router according to any of the preceding claims, wherein said routed data are flight plan data.